

Naval Facilities Engineering Command

Abstract of an Accident

01-02

Accident Type: Crushing
Injury: Fatality
Type of Work: Trenching
Equipment: John Deere Excavator 790D-LC with a PSM Bucket Clamp (Thumb) attachment;
Safe-T-Shore Trench Shield System, Model # XLD-812, Serial # 21115

DESCRIPTION OF THE ACCIDENT:

Workers were in the process of dismantling a trench shield system that was to be returned to the rental company on the day of the mishap. The trench shield system was laying on its side with only two of the four spreader bars installed. Workers were utilizing an excavator, that had a bucket clamp (Thumb) attachment, to clamp down one side of the trench shield plate to lift and move the trench shield system to level ground. The operator of the excavator stated that the trench shield system seemed unstable and had a torquing movement. The upper two of the four locking pins that held the shield plate together with the spreader bars had been removed by another worker causing the shield plate to become very unstable even with the bucket clamp (Thumb) attachment securely clamped down on one side of the shield plate. A worker noted that it was unsafe and was beginning to reinstall the locking pins while the deceased went to get the chain rigging for the trench shielding that was somewhere behind the excavator. After getting the chain rigging, the deceased walked from right side of the excavator and then proceeded to walk in between the excavator and trench shield system. The trench shield plate shifted and slipped out from the bucket clamp (Thumb) attachment striking the worker on his head and upper torso causing the fatality.



Upper locking pins missing



Location of deceased

DIRECT CAUSE:

- ◆ Disassembly of trench shield system was not in accordance with manufacture specifications.
- ◆ Use of the excavator bucket clamp (Thumb) was not in accordance with manufacture specifications to lift and/or support trench shield system.
- ◆ Personnel walking in between a suspended load and excavator (No-Zone).

INDIRECT CAUSE:

- ◆ Lack of job/site specific Activity Hazard Analysis (AHA).
- ◆ Lack of adequate supervision.
- ◆ Personnel haste and/or inattentiveness to complete the disassembly before lunch.

LESSONS LEARNED:

- ◆ Competent Person for excavation safety should also review manufacture specifications or procedures for shoring systems or equipment and incorporate pertinent safety requirements in the AHAs such as assembly/disassembly of trench shielding, etc.
- ◆ All personnel must receive adequate hazard awareness training for working around mechanized equipment and excavations. AHA must address the required training to be given and all control measures to be followed.
- ◆ Contractor personnel should implement and practice the concepts of Operational Risk Management (ORM) process.

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